PITTSBURG LANDING CREEK PORTABLE ACCLIMATION/RELEASE FACILITY 9801005

SHORT DESCRIPTION:
Enhance natural production of Snake River fall chinook above Lower Granite Dam through acclimation and final rearing of Lyons Ferry yearlings.

SPONSOR/CONTRACTOR: USFWS, LSRCP
U.S. Fish and Wildlife Service
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GOALS

GENERAL:
Supports a healthy Columbia basin, Maintains biological diversity, Maintains genetic integrity, Increases run sizes or populations

ANADROMOUS FISH:
Production, O&M

NPPC PROGRAM MEASURE:
No response

BIOLOGICAL OPINION ID:
Pittsburg Landing:
1. Informal ESA Consultation, W.Stelle, Nov. 6, 1995, Operation of
Pittsburg
Landing Acclimation Facility Capt. John Rapids:
Biological assessments will be submitted in July 1997.Big Canyon:
1. Consultaion No. 649, Operation of Big Canyon fall chinook acclimation facility 1997-1999

OTHER PLANNING DOCUMENTS:
Wy-Kan-Ush-Mi-Wa-Kish-Wit:
Vol. II, pp.97-99, 108-110, Summary Tables B & C

BACKGROUND

Stream name:
Snake and Clearwater Rivers

Stream miles affected:
Snake:
rm215(Pittsburg), rm163.5 (Capt. John Rapids),Clearwater:
rm35 (Big Canyon

LAND AREA INFORMATION

Subbasin:
Snake River

Land ownership:
Pittsburg:
Public
Capt. John Rapids:
Public
Big Canyon:
Nez Perce Tribe

Acres affected:
Pittsburg:
1Capt. John Rapids:
3 Big Canyon:
4

HISTORY:
Funding for the construction of the three acclimation facilities was secured during deliberations by U.S. Congress over the FY 95 budget, during which they instructed the USACOE to construct, under the Lower Snake River Compensation Plan, final rearing and/or acclimation facilities for fall chinook salmon in the Snake River basin above Lowere Granite Dam to complement their activities and efforts in compensating for fish lost due to construction of the lower Snake River dams. The conference report (Senate Report 103-672, p. 7) of the joint House-Senate Conference Committee resolving the FY95 energy and water appropriations bill (Public Law (PL) 103-316) indicated that $5 million (ACongressional Add) in additional funding was authorized to initiate such hatchery-related construction projects. The LSRCP is to fund the operations and maintenance of facilites constructed under the plan.

BIOLOGICAL RESULTS ACHIEVED:
In April 1995, 114,000 yearling fall chinook were acclimated and released from Pittsburg Landing. Expect adult return between 0.2% (228) and 0.6% (684).

PROJECT REPORTS AND PAPERS:
Pittsburg Landing Facility:
Environmental Assessment, LSCRP, Temporary Fall Chinook Acclimation
Facility-Pittsburg Landing, Idaho County, Idaho, August 1995
Capt. John Rapids & Big Canyon Facilities: LSRCP, Fall Chinook Initiatives, Environmental Assessment, Nov. 1996

ADAPTIVE MANAGEMENT IMPLICATIONS:
Monitoring and evaluation of yearling fall chinook releases will provide the basis to adaptively manage this program. Juvenile escapement and adult spawning will be closely monitored. Subyearling fall chinook research will also provide input to determine future release methods.

PURPOSE AND METHODS

SPECIFIC MEASUREABLE OBJECTIVES:
Release 300,000 fall chinook yearlings (10/lb) to enhance natural production of fall chinook in the Snake River between Asotin and Pittsburg Landing. Adult return expected to be between 0.2% (600) to 0.6% (1,800).Release 150,000 fall chinook yearlings (10/lb) to enhance natural production of fall chinook in the Clearwater River between Peck and Lewiston. Adult return expected to be between 0.2% (300) to 0.6% (900).

CRITICAL UNCERTAINTIES:
Supplementation success is dependent on smolt to adult survival higher than replacement values which cannot be affected by these projects beyond the release of yearlings.

BIOLOGICAL NEED:
Naturally reproducing Snake River fall chinook have been listed as threatened under the ESA. This project intends to increase numbers of naturally spawning adults.

HYPOTHESIS TO BE TESTED:
Supplementation technology can recover weak populations through acclimation of actively migrating yearlings and their release within suitable habitat.

ALTERNATIVE APPROACHES:
Direct stream release was considered however due to rapid outmigration of yearlings past Lyons Ferry Hatchery successful imprinting was considered unlikely.

METHODS:
Acclimate and release 450,000 fall chinook yearlings in 32 - 20 ft circular tanks (Pittsburg Landing and Big Canyon) and one ingr

ound pond (Capt. Johns Rapids).

PLANNED ACTIVITIES

SCHEDULE:

CONSTRAINTS OR FACTORS THAT MAY CAUSE SCHEDULE OR BUDGET CHANGES:
Lack of fall chinook adults returning to Lyons Ferry Hatchery to provide 450,000 yearlings.
The USACOE is negotiating the purchase of land at Capt. John Rapids. If unsuccessful an alternate site just downstream, designated the Grain Elevator, could substitute.
Adults returning from yearling releases will probably have offspring that migrate as subyearlings. Unless subyearling survival to adults improves these releases may have to go on indefinitely.

OUTCOMES, MONITORING AND EVALUATION

SUMMARY OF EXPECTED OUTCOMES

Expected performance of target population or quality change in land area affected:
600 to 1,800 additional naturally spawning fall chinook in the Snake River between Asotin and Pittsburg Landing each year beginning in 1999.
300 to 900 additional naturally spawning fall chinook in the Clearwater River between Lewiston and Peck.

Present utilization and convservation potential of target population or area:
The target population is not utilized until they can be removed from ESA listing.

Long term expected utilization and conservation potential for target population or habitat:
Harvest of fall chinook adults once natural production needs are met.

Contribution toward long-term goal:
An increase in natural spawning.

Indirect biological or environmental changes:
The life history of Snake River fall chinook typically includes a subyearling outmigrant. However smolt to adult survival of subyearling releases is less than replacement leaving only yearling releases as an alternative release strategy. Yearling releases may result in permanent life history change away from subyearling migrants.

Physical products:
450,000 yearling fall chinook acclimated and released.

Environmental attributes affected by the project:
Pittsburg Landing: Temporary loss of use of a gravelled area next to boat launch ramp.
Capt. John Rapids: Permanent pond proposed occupying 2 to 3 acres.
Big Canyon: Temporary blocking of Peck boat ramp for one month and partial blocking of ramp for 3 to 4 months.

Assessment of effects on project outcomes of critical uncertainty:
Smolt to adult survival will be assessed by aerial spawning ground surveys (USFWS & NPT), observation of marked adults (visual implant tags) passing Lower Granite Dam.

Information products:
Annual operating report.

MONITORING APPROACH

What provisions are in place, in this project or others, to monitor population status for the target stock, or to monitor the availability or quality of the habitat type targeted?
The target population will be monitored by aerial redd surveys and dam passage counts by the NPT, USFWS and COE.

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Data analysis and evaluation:

Monitoring and evaluation will provide annual reports.

Information feed back to management decisions:

Snake River fall chinook coordination meetings between USFWS, WDFW, NMFS, and NPT meet 2 to 3 times per year. Reports generated by these groups will be considered by fisheries managers in planning production.

RELATIONSHIPS

OPPORTUNITIES FOR COOPERATION:

1. WDFW, Lyons Ferry Hatchery will continue to provide donor stock for all three facilities.
2. USFWS & NMFS will cooperatively monitor the results of acclimated releases.
3. USACOE, Walla Walla will provide engineering and fund via LSRCP program construction of Capt. Johns Rapids facility.
4. IDFG may provide support to transport fish from Lyons Ferry Hatchery to each acclimation facility.
5. USFWS, Ahsahka, ID, will continue to provide fish health monitoring of fish.

COSTS AND FTE

FUTURE FUNDING NEEDS: **PAST OBLIGATIONS (incl. 1997 if done):**

1997 OVERHEAD PERCENT: 29.5%

HOW DOES PERCENTAGE APPLY TO DIRECT COSTS:

Excludes subcontracts and equipment

CONTRACTOR FTE: 12 FTE for 3 to 5 months in 1998, 18 FTE for 3 to 5 months thereafter